

## PAPERS READ.

## A SHORT RESUMÉ OF THE RESULTS OF ANTHROPOLOGICAL AND ANATOMICAL RESEARCHES IN MELANESIA AND AUSTRALIA.

*(March, 1879—January, 1881.)*

BY N. DE MIKLOUHO-MACLAY.

After I had left Sydney in March, 1879, I visited the following islands: New Caledonia, Lifu; of the New Hebrides: Tanna, Vate, Tongoa, Mai, Epi, Ambrim, Malo, Vanua Lava; of the Admiralty Islands: the groups—Lub (or Hermit), Ninigo (Echiquier), Trobriant; the Solomon Islands; the islands at the south-east end of New Guinea, and the islands of Torres Straits.\*

Only a very few of the results of the journey can be comprehended in a short *resumé*; of these, the first two of the following appear to me to be the most important:—1. Many islands of Melanesia† (especially some of the islands of the New Hebrides, of the Solomon Group, of the Louisiades, New Ireland, &c., &c.), possess a well-marked brachycephalic population (the breadth-index of many heads exceeds 80, and sometimes even 85), which circumstance is assuredly not ascribable to a mixture with another race, and proves that brachycephalism has a much wider range in Melanesia than has been hitherto supposed. This is a result of numerous careful measurements of heads and skulls‡ of the aboriginals of different islands of Melanesia. 2. Although in some villages of the Southern coast of New Guinea there is

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\*A more detailed account of the route, of the time spent at the different places, with sketch maps of the routes and other details, will be found in my communications to the Imperial Russian Geographical Society, in the *Jswestija* of the Society.

†By the name "Melanesians," I designate exclusively the frizzy-haired inhabitants of the South Sea Islands.

‡In order to eliminate any doubt as to the correctness of the cranial measurements on living individuals, I have not neglected to collect a considerable number of undoubtedly authentic skulls from New Caledonia, New Guinea, the Admiraltys, Ninigo, and Solomon Islands.

noticeable a Polynesian admixture, yet this circumstance by no means permits of the aboriginals of the south-eastern peninsula (who are a branch of the Melanesian stock) being called a "yellow Malayan race," as has been frequently done of late years. 3. An acquaintance with the languages of the group Lub (or Hermit) and the dialects of the Northern coast of the large island of the Admiralty Group, as well as the native traditions of the former, has shown that the population of the group Lub emigrated from the Admiralty Islands. Further acquaintance with the natives of Lub proved that there is among them a Polynesian admixture, which has resulted from the carrying off of the women of the group Ninigo, and from a frequent intercourse with the inhabitants (also a Melano-Polynesian race) of the smaller group Kaniet or Kanies (or Anchorites). My stay among the inhabitants of the Admiralty Islands has afforded me a glimpse into many interesting customs of the islands; but an account of these observations and researches cannot be condensed within the compass of a few sentences. To this series of results belong also the observations which I never neglected to make during the journey in Melanesia, whenever the opportunity presented itself—especially observations on their customs, such as the deformation of the head, tattooing, perforation of the septum narium, *alæ nasi*, lobes and margins of the ears. I have also succeeded in making further observations, and obtaining more information, on the macrodontism in the Admiralty and Lub islands.

On my way back from the islands of Torres Straits I visited Brisbane, where, at first I only intended to remain a few days. Here, however, a favourable opportunity presented itself of acquiring some interesting anatomical material for my anthropological researches, which circumstance induced me to prolong my stay for several months. I found, namely, that there was a possibility of continuing my researches on the comparative anatomy of the brain of the different varieties of the genus *homo*, which were commenced in 1873 in Batavia and resumed in Sydney in

1881. Although the material in question consisted only of three brains, yet I find that this new contribution to our knowledge of race-anatomy supports the view which I may briefly summarize as follows:—The investigation of the brains of representatives of different races of men shows that there occur peculiarities of by no means trifling import, which one cannot regard as individual variations. To this category belong differences in the development of the *corpus callosum*, of the *pons varolii*, of the *cerebellum*; differences in the volume of the cranial nerves, and so forth; also the arrangement of the convolutions of the *cerebrum* is different, and I believe that in course of time it will probably be discovered that there exist certain definite types of cerebral convolutions corresponding to the principal varieties of mankind. In order to discover those types much material will require to be conscientiously examined; and I hope that my investigation will induce other anatomists to work in this direction to prove or to disprove this statement, which in the present state of our knowledge can only be more or less hypothetical.

On my way from Thursday Island I let slip no opportunity of examining, measuring, and photographing the remnant of the Australian aboriginals; and hearing it stated in various quarters that there were living in the interior of Queensland certain natives, described as devoid of hair, I thought the problem of a possible occurrence of a hairless stock among the aboriginals worthy of a personal investigation. I have written to Professor Virchow, of Berlin, at length concerning my examination of this hairless family, which I found at Gulnarber Station, near St. George, on the Belonne River. This was made considerably easier for me by the kind assistance of Mr. G. M. Kirk, of Gulnarber Station. As regards this instance of natural, and in this case hereditary *atrichia universalis* among the Australian aboriginals, I will only remark that it forms an interesting antithesis to the well-known cases of excessive *hypertrichosis*.

In order to work quite without disturbance, availing myself of the kind hospitality of the Hon. J. P. Bell, I went to Jimbour,

near Dalby, where I was able for some fourteen days in absolute quiet to revise my travelling notes, and to overtake my neglected correspondence.

With a view of pursuing comparative anatomical researches on the brain of the Marsupials, I went from Jimbour to Pikedale, near Stanthorpe, where I succeeded during a stay of almost six weeks in acquiring for my cerebral investigations some material which is almost impossible to obtain in the cities, such as Brisbane or Sydney, and which, as I have learnt by my own experience, cannot be obtained even in the bush with great ease and quickness. I succeeded, however, in obtaining a number of brains of some species of the genera—*Macropus*, *Osphranter*, *Halmaturus*, *Petrogale*, *Phascolarctus*, as well as a few brains of *Ornithorhynchus* and *Echidna*.

At the end of December, last year, still availing myself of the kind hospitality of Mr. Donald Gunn, I went on to his other Station, Clairvaux, near Glen Innes, with the intention of collecting some fossils, and without great trouble, I got a series of interesting remains of *Diprotodon australis*, *Nototherium Mitchellii*, *Phoscolomys gigas*, *Macropus titan*, &c., &c.

Referring to the work done in Queensland, I will not neglect this opportunity to express, in the "name of Science," my most sincere thanks to *all* who have assisted me in my scientific work—the more so, that, through this assistance, I have been enabled to obtain much more satisfactory results than would otherwise have been the case. Especially important for me was the permission accorded me by the Queensland Government to use the old museum as a laboratory, and the use of the photographic apparatus of the Survey Office, where I obtained the excellent photographs of the brain which are exhibited. Among many in Queensland whose kindness I have experienced, I must mention, with especial gratitude, the name of the celebrated Australian traveller, Mr. A. C. Gregory, C.M.G. The six weeks of my stay at his residence, Rainworth, were for me both instructive and

pleasant, owing to his extensive knowledge of different branches of science, and his wide experience as a traveller.

When I received in May, 1880, in Thursday Island, a letter from my friend, Mr. William Haswell, informing me that the Zoological Station in Sydney was not established, I determined not to leave Australia before the scheme had been carried out. Detained in Queensland by the work already referred to, I only arrived in Sydney in January of this year, and now, after a stay of one month, I have the pleasure to announce that I have every reason to believe that the Zoological Station at Watson's Bay will be opened in a short time. My stay in Brisbane has once more caused me to feel the *necessity* of such an institution for the biologist. I could expatiate at length on the advantages of a Zoological Station, but I content myself with remarking that, in spite of my great dislike to waste my time, I was obliged to spend many days, even weeks, in Brisbane and Sydney without the possibility of working, on account of the want of a suitable place. (Here I must express my thanks to Sir Henry Parkes for placing at my disposal the cottage in the Exhibition Ground—one of the present "temporary Zoological Stations.")

I repeat again my conviction, grounded on long experience, that "the immediate need is not of apparatus or libraries, but of a place for undisturbed work."\* I hope to be able, not later than in two months, to work in the Zoological Station in Watson's Bay. I am convinced that many men of science will avail themselves of it in future years; and I am satisfied to leave for future generations such a memento of my stay in Sydney as the *first Zoological Station in Australia*.

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\*Vide "Proceedings of the Linnean Society of New South Wales," 26th August, 1871.